

MARINE CORPS WARFIGHTING LABORATORY



lab fact sheet

The Marine Corps Warfighting

Laboratory, originally known as the Commandant's Warfighting Laboratory, was established in 1995. It is located at Quantico, Va. and is part of the Marine Corps Combat Development Command.

The commanding general of the Lab also serves as the vice chief of naval research at the Office of Naval Research.



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3255 MEYERS AVENUE
QUANTICO, VA 22134
WWW.MCWL.QUANTICO.USMC.MIL

The Lab's purpose is to improve current and future naval expeditionary warfare capabilities across the spectrum of conflict for current and future operating forces by:

- Conducting concept-based experimentation and wargames to identify, develop and integrate operational concepts with tactics, techniques, procedures and technologies.
- Supporting the Marine Corps Warfighting Advocates (Command Element, Ground Combat Element, Aviation Combat Element, and Combat Service Support Element); Marine Corps Combat Development Command; Training and Education Command; and Systems Command to meet Service-specific requirements.
- Supporting Joint experimentation through Marine Forces Atlantic, the assigned lead for Marine Corps participation in Joint Forces Command's Joint concept development and experimentation program.
- Forwarding results of experimentation to the Marine Corps Expeditionary Force Development System (EFDS) with recommendations for action.

The Lab conducts experimentation using a concept-based innovation and experimentation model. The model begins with an idea and proceeds through a capabilities refinement phase, usually associated with

wargaming, an experimentation phase and a capability development phase within the EFDS.

LAB ORGANIZATION

The Lab is made up of several different divisions and organizations.

Major components are:

The Lab staff. The primary staff is composed of operations, planning and technology sections that develop and execute experiments and day-to-day functions. The technology section also searches for and evaluates experimental technologies.

Special Purpose Marine Air-Ground Task Force (Experimental). Established in 1996, the SPMAGTF(X) serves as the Lab's experimental unit and as the training cadre for operating forces participating in experiments.

Wargaming. A division of the Lab, Wargaming serves as both a Lab and Marine Corps asset. It is responsible for carrying out the Marine Corps Wargaming Program.

Office of Science, Technology and Innovation (OSTI). This office was integrated into the Lab in October 2000 with the mission to develop the vision, policies and strategies needed to exploit scientific research and technological development; to integrate and focus science and technol-

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ogy efforts; and to coordinate the Marine Corps science and technology process. The goal is to leverage technology and innovation to enhance the warfighting capabilities of every Marine.

Center for Emerging Threats and Opportunities (CETO).

A partnership between the Marine Corps and the Potomac Institute for Policy Studies, CETO was established in November 2000 as a “think tank” to develop initiatives aimed at identifying and responding to asymmetrical threats and to explore potentially transformational opportunities.



Improving naval expeditionary warfare capabilities across the spectrum of conflict.

FOCUS AREAS

The Lab has divided its efforts into Focus Areas to concentrate experimentation in areas that reflect both Service-specific and Marine Corps contributions to future Joint warfighting capabilities:

Military Operations on Urban Terrain (MOUT).

Urban environments are the most likely battlefields of the future. The close battle inherent in urban operations reduces the U.S. technological advantage and is the one area where the weak can challenge the strong. Developing means to deal with this complex urban environment effectively is the single greatest tactical challenge for future expeditionary forces.

Asymmetrical Warfare. Most adversaries will no longer try to match U.S. strengths; they will attack our forces in unconventional, unexpected and innovative ways. The Lab attempts to find and refine methods to counteract the constantly evolving threat to U.S. forces and interests.

Reconnaissance, Surveillance, and Target Acquisition (RSTA). Emerging sensor, optics and communications technologies promise to revolutionize traditional reconnaissance and tactical information collection processes. Such technologies specifically include mobile unmanned sensors controlled at the small unit level. Emerging technologies integrated into a relevant system

to improve tactical situational awareness in the battlespace will be key enablers of highly mobile, ground combat forces employing the array of precision weapons available to future Joint forces.

Command and Coordination and Information Technology (C2/IT). Bridging the digital divide between the command element and the infantryman on the ground is a principle goal of the Lab. The objective of the C2/IT functional area is to exploit emerging information technologies at the tactical level to achieve transformational effects on ground combat capabilities.

Transition Support for Experimental Prototypes.

The Lab provides the opportunity for the operating forces to experiment and assess the value of promising technologies. The Lab recommends changes to requirement documents; proposes block technology insertions into programs of record; and provides alternative ideas to meet acquisition objectives as a result of experimentation.



CONTACT: PUBLIC AFFAIRS OFFICE
(703) 784-5170
WWW.MCWL.QUANTICO.USMC.MIL